PCT/ FI 97/00605

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Claims

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An electric machine construction, comprising
a stator space (9) defined by a shell (8) and end portions
(6) at both ends of the shell (8),

stator means and rotor means (20) having a first end and a second end disposed within said stator space (9),

characterized by comprising

at least one cooling medium inlet opening (14,34) in the shell (8) and positioned intermediate the ends of the rotor means (20),

means (13) at the vicinity of both end portions (6) of the stator space (9) for providing suction for drawing cooling medium into said stator space (9),

wherein the arrangement is such that the cooling medium is drawn by the suction into the stator space (9) through said at least one inlet opening (14,34) and that the cooling medium is removed at the vicinity of both end portions (6) of the stator space (9).

- 2. An electric machine construction according to claim 1, c h a r a c t e r i z e d in that the conduction of the cooling medium into the stator space (9), circulation within the stator space and removal (12) from the stator space is arranged such that it occurs symmetrically relative to the electric machine construction (10).
- 3. An electric machine construction according to claim 1 or 2, c h a r a c t e r i z e d in that said end portions (6) are arranged further to form attachment means (5) of the electric machine construction for the attachment thereof to a mounting bed.
- 4. An electric machine construction according to any of the preceding claims, c h a r a c t e r i z e d in that the both ends of the electric machine construction (10) are provided with power output shafts (4).

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- 5. An electric machine construction according to any of the preceding claims, c h a r a c t e r i z e d in that the apparatus (30) to be driven by the electric machine (10) is attached (32) directly to the end portion (6) of the electric machine construction, whereby the attachment means (5) integrated in the end portion (6) of the machine construction (10) form the means for attaching the integrated apparatus assembly to a bed.
- 6. An electric machine construction according to any of the preceding claims c h a r a c t e r i z e d in that it is further provided with blower means so as to intensify the cooling medium flow
- 7. An electric machine construction according to any of the preceding claims, c h a r a c t e r i z e d in that it further comprises heat exchanger means (24) provided within a space (23) between the outer surface of the shell (8) and the outer housing for cooling of the cooling medium flow, the construction being arranged to enable a closed circulation (25,14,9,12,23) of the cooling medium flow.
- 8. A method for an electric machine construction comprising a stator space (9) defined by a shell (8) and end portions (6) at the either ends of the shell (8), wherein stator means and rotor means of the electric machine are disposed within said stator space, c h a r a c t e r i z e d in that cooling medium is drawn into the stator space (9) through at least one cooling medium inlet opening (14,34) in said shell (8) intermediate the ends of the rotor means (20) by means of suction caused by means (13) for providing the suction, said means (13) being provided at the vicinity of both end portions (6), and the cooling medium is removed at the vicinity of both ends portions (6) of the stator space (9).
- 9. A method according to claim 8, c h a r a c t e \dot{r} i z e d in that the suction aided conduction of the cooling medium

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into the stator space (9), circulation within the stator space and removal (12) from the stator space occurs symmetrically relative to the electric machine construction (10).

- 10. A method according to claim 8 or 9, c h a r a c t e r i z e d in that it further includes mounting of an apparatus (30) to be driven by the electric machine (10) directly to the end portion (6) of the electric machine construction, and utilizing the attachment means (5) integrated in the end portion (6) of the machine construction (10) in attaching the integrated apparatus assembly to a bed.
- 11. A method according to any of claims 8 to 10, c h a r a c t e r i z e d in that it further includes intensifying the cooling medium flow by blower means.
- 12. A method according to any of claims 8 to 11, c h a r a c t e r i z e d in that it further includes cooling of the cooling medium flow by heat exchanger means (24) provided within a space (23) between the outer surface of the shell (8) and the outer housing so as to enable a closed circulation (25,14,9,12,23) of the cooling medium flow.